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EXAMINER	
HUYNH, THU V	

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/615,979	YASHIRO, SADAO	
	Examiner	Art Unit	
	Thu V. Huynh	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: application filed on 07/10/03, which has foreign priority filed on 07/30/02.

2. Claims 1-18 are pending in the case. Claims 1, 9, 16 and 18 are independent claims.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

4. Claims 3 and 8 are objected to because of the following informalities:

Regarding claim 3, which is dependent on claim 1, the use of "converting the document ... for said documents" has typographical error, since "converting the structured document ... for said tagged documents" should be used for consistency instead of "the document".

Regarding claim 8, which is dependent on claim 3, the use of "direction of the structure document" should be used for consistency instead of "direction of the document".

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 1-18, the language of the claims raise a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject mater under 35 U.S. C. 101.

In this case, claims 1-15 recite steps of a method that can be done by a person as a mental step and/or using pencil and paper for converting and restoring a structured document. These claims' limitations are not explicitly directed toward steps being implemented on a computer, computer readable medium, or other statutory device and produced a concrete, useful, and tangible result.

Claims 16-18 are for computer program. However, independent claims 16 and 18 recite "a program for converting a structured document" and "a program for converting and restoring a structured document" respectively, are software per se, not stored on a computer-readable medium in manner to enable to read executed and cause a computer to realize its functionality and provide a useful, concrete and tangible result.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claims 1-2, 4, 6-10, 12 and 14-18 are rejected under 35 U.S.C. 102(e) as being**

anticipated by O'Neil et al., US 2003/0110150 A1, priority filed 11/30/01.

Regarding independent claim 1, O'Neil teaches the steps of:

- dividing a structured document, which is composed of tagged documents listed sequentially and ordered hierarchically, by tags (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing hierarchically xml structured document in fig.2 by tag elements);
- converting said structured document into tagged documents that added positional information indicating a position in said structure document to said divided documents (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; converting the xml structured document in fig.2 into tagged documents in fig.4 that added depth and index information (ORDPATH information) indicating a position in the xml structured document).

Regarding claim 2, which is dependent on claim 1, O'Neil teaches adding said positional information as attributes information in said tag (O'Neil, fig.4; "ORDPATH" information are attributes of tag elements).

Regarding claim 4, which is dependent on claim 1, O'Neil teaches transferring said tagged documents in a specified priority order (O'Neil, fig.4, [0047], transferring the divided documents, which is specified in ORDPATH priority for reconstructing).

Regarding claim 6, which is dependent on claim 1, O'Neil teaches rearranging said tagged documents in accordance with said positional information of said converted tagged documents and deleting said positional information from said tagged documents (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

Regarding claim 7, which is dependent on claim 2, O'Neil teaches extracting said positional information from said converted tagged documents and rearranging said tagged documents in accordance with said positional information; and deleting said position information from said tagged documents (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4 based on "ORDPATH" information, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

Regarding claim 8, which is dependent on claim 3, O'Neil teaches rearranging said tagged documents in the line direction of the document, in accordance with said indexes of said converted tagged documents; and ordering said tagged documents hierarchically, in accordance with said depth information of said tagged document (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4 based on "ORDPATH" information, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

Regarding independent claim 9, O'Neil teaches the steps of:

- dividing a structured document, which is composed of tagged documents listed sequentially and ordered hierarchically, by tags (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing xml structured document in fig.2 by tag elements);
- converting said structured document into tagged documents that added positional information indicating a position in said structure document to said divided documents (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; converting the xml structured document in fig.2 into tagged documents in fig.4 that added depth and index information (ORDPATH information) indicating a position in the xml structured document);
- rearranging said tagged documents in accordance with said positional information of said converted tagged documents (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4 based on "ORDPATH" information); and
- restoring said structured document by deleting said positional information from said tagged documents (O'Neil, [0047]; reconstructing the xml document in fig.2 from the tagged documents in fig.4, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

Regarding claim 10, which is dependent on claim 9, O'Neil teaches adding said positional information as attribute information in said tag (O'Neil, fig.4; "ORDPATH" information are attributes of tag elements).

Regarding claim 12, which is dependent on claim 9, O'Neil teaches transferring said tagged documents in a specified priority order (O'Neil, fig.4, transferring the divided documents in fig.4, which is specified ORDPATH priority for reconstructing).

Regarding claim 14, which is dependent on claim 10, O'Neil teaches wherein said restoring step comprises the steps of: extracting said positional information from said converted tagged documents and resorting said tagged document in accordance with said positional information; and deleting said positional information from said tagged document (O'Neil, [0047]; reconstructing the xml document in fig.2 based on "ORDPATH" information from the tagged documents in fig.4, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

Regarding claim 15, which is dependent on claim 11, O'Neil teaches the steps of: resorting said tagged documents in the line direction of the document, in accordance with said indexes of said converted tagged documents; ordering said tagged documents hierarchically, in accordance with said depth information of said tagged documents (O'Neil, [0047]; reconstructing the xml document in fig.2 based on "ORDPATH" information from the tagged documents in fig.4, wherein the ORDPATH information does not appear in tagged documents in the reconstructed document).

Claims 16-18 are for computer program (O'Neil, [0023]) performing the method of claims 1, 6 and 9 respectively and are rejected under the same rational.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. **Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil as applied to claims 1 and 9 as explained above, and further in view of Jones et al., US 2004/0205583 A1, filed 06/27/02.**

Regarding claim 3, which is dependent on claim 1, O'Neil teaches converting step comprises a step of converting the document to a new structured document that added index and depth information for said documents by means of attribute values (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; converting the xml structured document in fig.2 into tagged documents in fig.4 that added depth and index information (ORDPATH information) indicating a position in the xml structured document). However, O'Neil does not explicitly disclose attribute values restricted by a namespace.

Jones teaches elements of an XML file have an associated namespace; each XML document can use a namespace to identify the type of XML associated with the document (Jones, [0001], [0002]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Jones' teaching of namespace into O'Neil's XML

document to associate a namespace to the document, since the combination would have used the namespace for identify the type, the elements of the XML document, wherein the namespace is commonly used as Jones' disclosed in paragraph 0002.

Regarding claim 11, which is dependent on claim 9, O'Neil teaches converting step comprises a step of converting the document to a new structured document that added index and depth information for said documents by means of attribute values (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; converting the xml structured document in fig.2 into tagged documents in fig.4 that added depth and index information (ORDPATH information) indicating a position in the xml structured document). However, O'Neil does not explicitly disclose attribute values restricted by a namespace.

Jones teaches elements of an XML file have an associated namespace; each XML document can use a namespace to identify the type of XML associated with the document (Jones, [0001], [0002]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Jones' teaching of namespace into O'Neil's XML document to associate a namespace to the document, since the combination would have used the namespace for identify the type, the elements of the XML document, wherein the namespace is commonly used as Jones' disclosed in paragraph 0002.

10. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

O'Neil as applied to claims 1 and 9 as explained above, and further in view of Kanie et al., US 2002/0002567 A1, filed 01/18/01.

Regarding claim 5, which is dependent on claim 1, O'Neil teaches dividing the document by said tags (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing xml structured document in fig.2 by tag elements). O'Neil teaches updating or changing the xml structured document in fig.2 by inserting nodes (O'Neil, [0049], [0059]). However, O'Neil does not explicitly disclose extracting differential information relating to an original structured document and an updated structured document.

Kanie teaches extracting differential information relating to an original structured document and an updated structured document (Kanie, abstract, [0050], [0052]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Kanie's teaching into O'Neil's teaching to extracting different information relating to an original structured document and an updated structured document, since the combination would have created a multi-version document and displaying changes made to all version documents as disclosed by Kanie as well as converted structured documents as O'Neil disclosed, which includes original, updated or multi-version document.

Regarding claim 13, which is dependent on claim 9, O'Neil teaches and dividing the document by said tags (O'Neil, figures 2-4; [0019], [0032], [0045], [0046]; dividing xml structured document in fig.2 by tag elements); editing said tagged documents in accordance with the positional information of said converted tagged documents in said original structured document (O'Neil, [0047]; editing said tagged documents in fig.4 to reconstruct the xml

document in fig.2 based on "ORDPATH" information). O'Neil teaches updating or changing the xml structured document in fig.2 by inserting nodes (O'Neil, [0049], [0059]). However, O'Neil does not explicitly disclose extracting differential information relating to an original structured document and an updated structured document.

Kanie teaches extracting differential information relating to an original structured document and an updated structured document (Kanie, abstract, [0050], [0052]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Kanie's teaching into O'Neil's teaching to extracting different information relating to an original structured document and an updated structured document, since the combination would have created a multi-version document and displaying changes made to all version documents as disclosed by Kanie as well as converted structured documents as O'Neil disclosed, which includes original, updated or multi-version document.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ballantyne et al., US 6,687,873 B1, filed 03/00, teaches method for reporting XML data from a legacy computer system.

Hsing et al., US 2002/0023113 A1, filed 08/01, teaches remote document updating system using xml and dom.

Cornelius et al., US 6,684,222 B1, filed 11/00, teaches method for translating data associated with a relational database.

Smith et al., US 2005/0246716 A1, filed 07/10/01, teaches namespace defines sort order for string.

Maeda et al., US 2001/0054049 A1, filed 12/00, teaches web page display method.

Jones et al., US 2004/0205470 A1, filed 06/02, teaches method for obtaining and using namespace related information for opening xml documents.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu V. Huynh whose telephone number is (571) 272-4126. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thu V. Huynh
December 7, 2005